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Rhabdias (Ophiorhabdias) horigutii n. subg., n. sp. (Nematoda) from the lung of a Japanese snake *Natrix tigrina*

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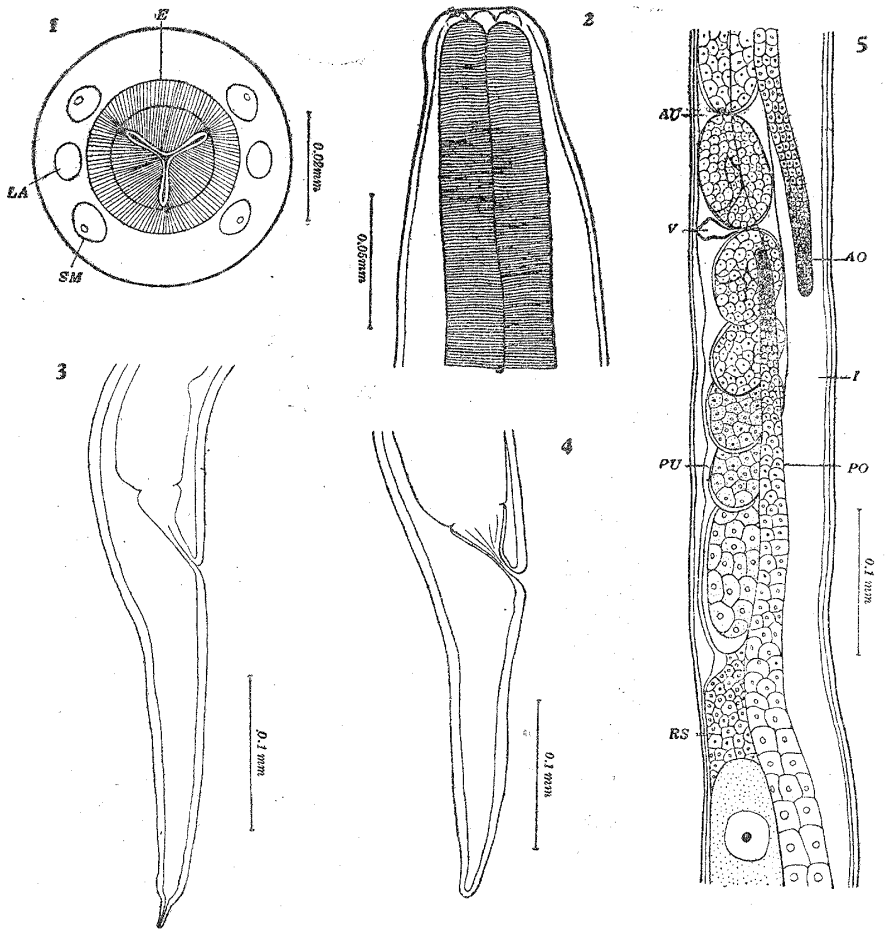
Numerous full-grown examples were found by Mr. K. Horiguti of the Niigata High School in the lungs of *Natrix tigrina* taken at Niigata.

Body slender, 2.4–4.4 mm long, 0.1–0.16 mm broad in vulvar region, whence it tapers inappreciably toward the extremities of the intestine. Esophageal region attenuated anteriorly. Tail subulate, 0.17–0.36 mm in length. Ratio of tail length to body length 1:10–17. Head truncate, 24–60 μ in diameter, with a pair of lateral amphids and two pairs of submedian papillae. Mouth simple, with shallow cavity. No buccal capsule as observed in *Rhabdias* of amphibians. Nerve ring and excretory pore 0.135–0.19 mm and 0.175–0.25 mm respectively from head end. Cervical glands cylindrical, 0.13–0.31 mm long by 20–30 μ broad, extending from slightly in front of excretory pore to anterior part of intestine, each containing its nucleus at the posterior end. Esophagus 0.28–0.36 mm long, with uniform breadth of 35–39 μ at its greater anterior portion, 40–66 μ broad at its posterior bulbous swelling. Intestinal epithelia containing fine dark brownish pigment granules except at the posterior end of the intestine, where they are replaced by columnar cells almost obstructing the lumen. Rectum funnel-shaped, with thick cuticular lining.

Anterior ovary originating behind vulva, turning backward 0.63–1.45 mm in front of vulva; posterior ovary arising in front of vulva, turning forward 0.63–1.6 mm behind vulva. Receptaculum seminis well differentiated, 120–180 μ long by 30–40 μ broad, lined with cuboid epithelia containing relatively large rounded nuclei. It seems certain that this part

has a secretory function as suggested by Goodey. Vulva with transverse, often prominent aperture, 1.0–2.15 mm from head end, 1.2–2.23 mm from tail end, dividing the body length in ratio of 1:1–1.7. Uterine eggs elliptical, thin-shelled, not numerous, 72–90×42–48 μ as measured in water without cover glass pressure; embryo about 0.26×0.018 mm.



Figs. 1–5. *Rhabdias* (*Ophiorhabdias*) *horigutii* n. subg., n. sp.
Fig. 1. Head, end-on view. E esophagus, LA lateral amphid, SM submedian papilla.
Fig. 2. Anterior extremity, lateral view.
Fig. 3. Usual form of tail, lateral view.
Fig. 4. Rare form of tail, lateral view.
Fig. 5. Vulvar region, dorsolateral view. AO anterior ovary, AU anterior uterus, PO posterior ovary, PU posterior uterus, I intestine, RS receptaculum seminis, V vulva.

This species differs from the closely related *Rhabdias ophidia* Goodey, 1924, in measurements, especially in the size of the body and eggs, and from *Rhabdias fuscovenosa* (Railliet, 1899) in the maximum ength of the body and the length of the tail relative to the body length. In the

latter species the length of the tail is only 0.11 mm (1/41 of body length) according to Railliet, and 0.092 mm (1/57 of body length) according to Hsü and Hoeppli. Further, the present species has no cuticular buccal capsule in contrast with the representatives from amphibian hosts, so that it seems justified to separate it as type of a new subgenus, for which the name *Ophiorhabdias* is suggested, and to leave the members from amphibia in the subgenus *Rhabdias*.

Ophiorhabdias n. subg.

Subgeneric diagnosis. *Rhabdias* Stiles et Hassall, 1905. Parasitic form: Head with a pair of lateral amphids and two pairs of submedian papillae. Mouth simple, without lips. No buccal capsule. Esophagus with bulbous swelling posteriorly. Tail sharp-pointed, occasionally somewhat blunt-pointed. Vulva in front of middle of body. Anterior ovary originating behind vulva, posterior ovary in front of vulva. Receptaculum seminis present. Uteri divergent. Eggs thin-shelled, embryonated at deposition. Parasitic in lungs of reptiles.

Type species: *Rhabdias* (*Ophiorhabdias*) *horigutii* n. sp.

In conclusion I wish to express my grateful appreciation to Mr. Horiguti for the collection of material.

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